

### **REMARKS**

In the Action, claims 1-14 and 16-23 are rejected. In response, claims 1, 2, 6, 12 and 17 are amended, and claims 20-23 are cancelled. This leaves claims 1-14 and 16-19 pending in this application, with claims 1, 2, 6, 12, 13, 16 and 17 being independent. In view of these amendments and the following comments, reconsideration and allowance are requested.

#### **Rejections Under 35 U.S.C. § 112**

Claims 1-14 and 16-23 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The Action suggests that the proviso excluding certain compounds from the claims is unclear. In response, claims 1, 6, 12, 16 and 17 are amended to clarify that the compounds of general formula (I) are excluded where X is an oxygen atom, R<sup>1</sup> is 1-pentyl, and R<sup>2</sup> and R<sup>3</sup> are methyl. As amended, the claims are submitted to clarify the invention.

Claims 2 and 13 are rejected as allegedly not having sufficient antecedent basis for certain compounds. However, claims 2 and 13 are independent and recite specific compounds. Thus, the claims do not require antecedent basis. Accordingly, the basis for this rejection is not understood.

In view of these amendments, the claims are submitted to be in proper form under 35 U.S.C. § 112, second paragraph.

#### **Rejections Over the Cited Art**

Claims 1-6, 12, 13 and 16-23 are rejected under 35 U.S.C. § 102(b) as being anticipated by the article by Wood et al. The Action refers to page 383, Table 1, Compound F, as anticipating the claims.

Independent claim 1 recites the compounds having the general formula (I) with the exception of the compounds where X represents an oxygen, R<sup>1</sup> is 1-pentyl, R<sup>2</sup> and R<sup>3</sup> are hydrogen and R<sup>4</sup> is methyl. This exclusion of R<sup>1</sup> being 1-pentyl excludes the compound F in Table 1 of Wood et al. Thus, claim 1 does not encompass compound F of Wood et al. so that claim 1 is not anticipated. Independent claim 12 recites the similar exclusion and is not anticipated for the same reasons.

Independent claims 6, 16 and 17 are amended to recite the proviso as in claim 1. Accordingly, these claims are also not anticipated. As amended, independent claim 2 and previously presented claim 13 are not anticipated by Wood et al. since these claims do not recite the compounds disclosed in Wood et al.

In view of these amendments and the above comments, the claims are not anticipated by Wood et al.

Claims 1-13 and 16-23 are rejected under 35 U.S.C. § 103(a) as being obvious over Wood et al. and WO 01/98258. Wood et al. is cited for disclosing structurally similar compounds and particularly compound F in Table 1 on page 383. WO '258 appears to be cited for disclosing related compounds for use in food or cosmetic compositions.

As noted above, the claims as amended do not recite the compound F of Wood et al. Furthermore, the claims do not recite the dihydroxyphenyl compounds of WO '258. As noted in the previous response, the compounds disclosed at the bottom of page 8 of WO '258 is a 3,4-dihydroxyphenyl compound having two hydroxyl groups in the positions 3 and 4 of the phenyl ring. The pending claims recite the compounds of general formula (I) where R<sup>4</sup> and X together are not hydroxyl groups. Therefore, the claims do not cover the dihydroxyphenyl compounds of WO '258.

The cited art does not disclose or suggest the aromatic effect and particularly the pungent effect of the claimed compounds. Compound 8e of Walpole et al. cited in the previous Office Action is the same compound as the compound F of Wood et al. For the reasons previously presented, the claims do not cover this compound. Walpole et al. also fails to describe any aromatic effect or pungent effect as in the claimed invention.

Wood et al. only discloses that capsaicin is the principal pungent component of red pepper plants. See, for example, page 381 of Wood et al. in the first sentence. There is no suggestion in Wood et al. that the compound F has a pungent effect. Wood et al. is directed to the capsaicin binding site defined by the use of photoactivatable affinity labels with capsaicin-like activity tag to capsaicin binding molecules. The compound F of Wood et al. is tagged in this manner. See, for example, page 381 the bottom of the left column.

Applicants submit that the compounds disclosed in Wood et al. would be expected by one of ordinary skill in the art to have little or not capsaicin activity. Therefore, one skilled in the art would also expect the compounds of Wood et al. to be less pungent or be not pungent at all. For example, page 382 of Wood et al. states that substituting the bond of capsaicin with a hydroxyamide leads to a progressive loss in immunoreactivity. The results shows less correlation with agonist activity as measured by calcium accumulation. Thus, one skilled in the art would expect the loss of agonist activity to result in a loss of the pungent effect of the compounds.


One skilled in the art would consider Wood et al. as providing evidence that structural changes to the capsaicin derivatives would be expected to result in the loss of capsaicin-like

activity and therefore a loss of the pungent effect. WO '258 relates to dihydroxy derivatives which are unrelated to the compounds disclosed in Wood et al. Accordingly, WO '258 provides no motivation or incentive to modify Wood et al. in a manner to attain the claimed invention. WO '258 would not lead one skilled in the art to the claimed compounds either alone or in combination with Wood et al. Accordingly, the claims are not obvious over the combination of Wood et al. and WO '258.

Claim 14 is rejected under 35 U.S.C. § 103 as being obvious over WO '258. Claim 14 depends from claim 12 and recites the process of producing the compounds of claim 12. For the reasons discussed above, the compounds of claim 12 are novel and unobvious over the art of record. Accordingly, the process for making these compounds is also unobvious. Furthermore, as noted above, WO '258 is directed to producing dihydroxy compounds. WO '258 does not suggest the claimed compounds or process for producing the compounds. Accordingly, claim 14 is not obvious over WO '258.

In view of these amendments and the above comments, the claims are submitted to be allowable over the art of record. Reconsideration and reexamination are requested.

Respectfully submitted,



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